

Remarks

The Applicants have amended Claims 29, 39 and 40 to recite that the nonwoven fabric or artificial leather sheet “does not contain an elastomer.” Similarly, Claim 33 has been amended to recite the fact that the method produces a nonwoven fabric that “does not contain an elastomer.” Support may be found in the prior version of Claim 29, for example, wherein the amount of elastomer was specified as being between 0 to 10 wt%. 0% of the elastomer is the equivalent of saying that the elastomer is not contained. Also, support may be found in the Applicants’ Specification such as on page 17 at lines 6 and 7 which recites that a leather-like sheet with a compactness can be obtained without using an elastomer. Entry into the official file is respectfully requested.

Claims 29-32, 39-40 and 42-48 stand rejected under 35 U.S.C. §103 over Mimura. The Applicants note with appreciation the Examiner’s detailed comments hypothetically applying Mimura against those claims. The Applicants nonetheless respectfully submit that there is a significant error in those comments and that in any event Mimura does not render those claims obvious. Details are provided below.

First, the rejection contains conflicting statements concerning portions of the disclosure at Mimura. In that regard, paragraphs 8 and 52 of the rejection rely on column 10, lines 39-53 of Mimura for the proposition that Mimura discloses 0-50 wt% of elastic polymer within the nonwoven fabric. Then, in paragraph 9 of the Official Action, the comparative table recites under the “materials” section that polyurethane is present in Mimura.

The Applicants agree with the characterization in the table in paragraph 9 of the Official Action that Mimura discloses the use of polyurethane, which is, of course, an elastic polymer. The Applicants disagree with the characterization that Mimura discloses 0-50 wt% of elastic polymer.

To clarify this portion of the record, the Applicants reproduce lines 39-53 of column 10 of Mimura below for the Examiner's convenience.

The amount of the elastic polymer to be impregnated can be easily controlled by adjusting the concentration of the elastic polymer in an impregnation solution and the wet pick-up of the impregnation solution at the time of impregnation. In the present invention, the weight ratio of the non-woven fabric to the elastic polymer is 97:3 to 50:50, preferably 95:5 to 60:40. When the proportion of the elastic polymer is smaller than 3 wt %, a soft sheet is easily obtained but a sheet which is tight and has adhesion strength when an elastic polymer film is formed on the surface to produce a grain type artificial leather is hardly obtained. When the proportion is larger than 50 wt %, the obtained sheet has the strong properties of the elastic polymer and high rubber elasticity and hence, is not suitable as a sheet for artificial leather.

The Applicants respectfully submit that Mimura actually discloses 3-50 wt% of the elastic polymer and not 0-50 wt% as stated in the rejection. In fact, column 10 teaches away from the omission of elastic polymer. This can be seen beginning at line 45 which recites that when the proportion of the elastic polymer is less than 3 wt%, a soft sheet is easily obtained but a sheet which is tight and has adhesion strength when an elastic polymer film is formed on the surface to produce a grain type artificial leather is hardly obtained. In other words, Mimura teaches those skilled in the art that at least 3 wt% of elastic polymer must be employed to produce an acceptable artificial leather. There is no teaching at all of the deliberate omission of elastic polymer. Mimura does just the opposite and teaches the use of at least 3 wt% of the elastic polymer.

This is sharply contrasted to the Applicants' claims which specifically recite that the nonwoven fabric or the artificial leather sheet "does not contain an elastomer." In other words, the Applicants' claims do just the opposite of what Mimura teaches, namely Mimura teaches the use of at least 3 wt% of the elastic polymer as an essential component. The Applicants respectfully submit that Mimura actually leads those skilled in the art away from the subject matter of the Applicants'

Claims 29-32, 39-40 and 42-48. The Applicants also respectfully submit that it is fundamental in analyzing §103 that when an applicant proceeds in the opposite direction of what the prior art teaches, that this is strong indicia of non-obviousness. Said differently, Mimura leads those skilled in the art away from the path taken by the Applicants as recited in Claims 29-32, 39-40 and 42-48. Again, this is compelling evidence of non-obviousness. Withdrawal of the rejection is respectfully requested.

Claims 33-38 stand rejected under 35 USC §103 over the hypothetical combination of Okamoto with Mimura. The Applicants again note with appreciation the Examiner's detailed comments hypothetically applying the combination against those claims. The Applicants nonetheless respectfully submit that even if one skilled in the art were to make the hypothetical combination, that combination would still fail to result in the subject matter of Claims 33-38. The reasons are set forth below.

The rejection states in paragraphs 36 to 39 of the Official Action that Okamoto discloses islands-in-sea type composite fibers. It should be noted, however, that Mimura discloses islands-in-sea type composite fibers in Comparative Examples 7, 8 and 10. That method includes steps of needle-punching islands-in-sea type composite fibers to produce a nonwoven fabric containing composite fibers (Comparative Example 7), removing the sea component of the composite fibers to produce the ultra-fine fibers (Comparative Example 7), subsequently impregnating the nonwoven fabric with a polyurethane (Comparative Example 8), and performing hydro-entanglement (Comparative Example 10). Such a method has similarities to that of the Applicants except for including the step of impregnating the nonwoven fabric with a polyurethane before the step of performing hydro-entanglement. The step of performing hydro-entanglement is essential in the Applicants' method to convert bundles of ultra-fine fibers into the state that the ultra-fine fibers are

entangled with each other. However, according to the Mimura method, the polyurethane prevents entanglement of the ultra-fine fibers with each other because the polyurethane is impregnated before hydro-entanglement, and in fact, teaches that “When the cross section of the sheet-6 was observed through an electron scanning microscope, most of it had such a structure that the polyurethane was existent while assemblies of fine fibers were entangled with one another like the sheet-5” in col. 19, lines 42-46. In that case, “assemblies of fine fibers” is the same as “bundles of fibers”. Thus, neither Mimura alone nor in combination with Okamoto discloses the feature in Claim 33 of performing hydro-entanglement after forming at least substantially all of the ultra-fine fibers to produce a nonwoven fabric which does not contain an elastomer.

In other words, even if one skilled in the art were to hypothetically combine Okamoto with Mimura, the result would still be methodology that would result in a nonwoven fabric that contains an elastomer. However, the Applicants’ Claim 33 specifically recites the production of a nonwoven fabric which does not contain an elastomer. The Applicants have nonetheless discovered that their nonwoven fabrics produce excellent artificial leather materials that are surprisingly strong and have an excellent exterior finish and feel. Thus, the combination would lead one skilled in the art away from the subject matter of Claims 33-38. As noted above, prior art combinations leading away from the claimed subject matter is excellent indicia of non-obviousness. Withdrawal of the rejection is respectfully requested.

Claims 47-48 stand rejected under USC §103 over the hypothetical combination of Katayama with Mimura. The Applicants respectfully submit that Katayama does nothing to cure the deficiency set forth above with respect to Mimura. Accordingly, the Applicants respectfully request withdrawal of the rejection of Claims 47-48.

Claims "40 & 42-28" are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting over Claim 1 of copending Application No. 10/522,519. The Applicants are non entirely sure of which claims are actually rejected based on the "40 & 42-28" language. The Applicants will therefore treat the rejection as if it applies to all of the claims. The Applicants nonetheless respectfully submit that the solicited claims are anything but obvious over Claim 1 of US 10/522,519. That is because that application teaches that it is essential for suede-type artificial leathers to contain polyurethane. This is again sharply contrasted to the claims in this application which specifically recites that the nonwoven fabrics and artificial leather sheets do not contain an elastic polymer. Application No. 10/522,519 leads those skill in the art away from the subject matter claimed in this application. Thus, the Applicants respectfully submit that the claims herein are not obvious over Claim 1 of Application No. 10/522,219. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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